

REMARKS

Claims 33-52 are pending in the application, claims 1-11 and 12-32 having been cancelled above and new claims 33-52 having been added above upon entry of the foregoing amendment.

By the above amendments, claims 12-32 canceled and replaced with new claims 33-52. New claims 33-44 correspond to the previous set of compound and composition claims (i.e., claims 1-11, 13-15, 19-24, 28 and 30) but have been written to more clearly emphasize the differences between the presently claimed invention and the cited references. In particular, the new claims include re-worded proviso language to more clearly define the disclaimed combination of substituents R_2 and R_3 . Additionally, new claims 45-52 have been added to cover methods of treating or inhibiting symptoms of a keratinization disorder. Support for new claims 45-52 can be found at least at pages 14-15 of the specification and original claim 6.

Applicants thank the Examiner for the courtesies extended to their representatives, Martin Bruehs and Mary Katherine Baumeister, during the personal interview conducted on June 28, 2002. In particular, Applicants thank the Examiner for acknowledging that new claims 33-44 including the above re-worded proviso language would be allowable. In this regard, the Examiner's Interview Summary accurately describes the content of the interview.

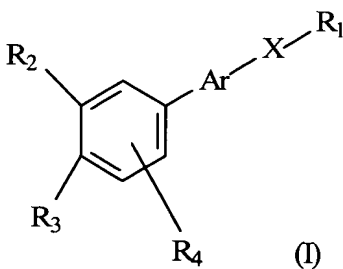
The Official Action mailed March 4, 2002, objected to claims 14-15, 24-27, and 29-32 for containing non-elected subject matter. As Applicants have cancelled claims 12-

32, this objection is now moot. Furthermore, the new claims have been written to exclude non-elected subject matter.

Claims 12-13 and 19-23 were rejected under 35 U.S.C. §102(b) as being anticipated by Obushak (DN 113:153173, HCAPLUS; Abstract of Zh. Org. Hhin. (1990)26 (4), 873-80) and Krutosikova (DN 84:58390, HCAPLUS; Abstract of Collect. Czech., Chem. Commun. (1975), 40 (11), 3362-9). As claims 12-32 have been canceled, this rejection is now moot. However, as Applicants have added new claims that correspond closely to the canceled compound claims, Applicants provide the following remarks to explain why the new claims are not anticipated by Obushak or Krutosikova.

The presently claimed invention is directed to bicyclic aromatic compounds as novel and useful industrial products. In particular, the present invention relates to the use of these novel compounds in pharmaceutical compositions intended for use in human or veterinary medicine, or alternatively in cosmetic compositions. See specification at page 1, lines 1-27.

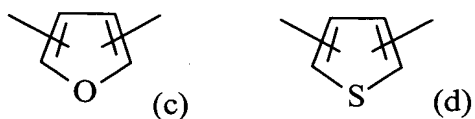
In particular, claim 33, as added above, sets forth a bicyclic aromatic compound, having the general formula (I):



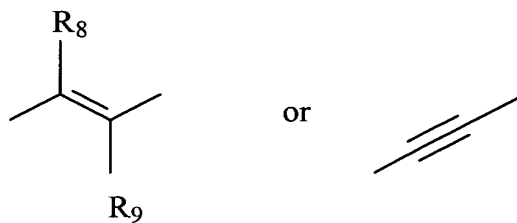
wherein,

- R_1 represents: (i) the $-CH_3$ radical;
(ii) the radical $-CH_2OR_5$; or
(iii) the radical $-COR_6$;

Ar is a radical of the formula (c) or (d):



- X represents



R_2 and R_3 , which may be identical or different, represent

- (i) a hydrogen atom;
(ii) an alkyl radical having at least 3 carbon atoms, among which the carbon attached to the phenyl radical is substituted with at least two carbon atoms;

(iii) a radical $-OR_5$;

(iv) a radical $-SR_5$; or

R_2 and R_3 , taken together, form with the adjacent aromatic ring a 5- or 6-membered ring optionally substituted with methyl groups and/or optionally interrupted by an oxygen or sulphur atom,

with the proviso that:

R_2 and R_3 cannot both be hydrogen;

R_2 and R_3 cannot both be a radical $-OR_5$;

R_2 and R_3 cannot both be a radical $-SR_5$;

when R_2 is hydrogen, R_3 cannot be a radical $-OR_5$ or a radical $-SR_5$;

when R_2 is a radical $-OR_5$, R_3 cannot be hydrogen or a radical $-SR_5$;

when R_2 is a radical $-SR_5$, R_3 cannot be a radical $-OR_5$ or hydrogen;

when R_3 is hydrogen, R_2 cannot be a radical $-OR_5$ or a radical $-SR_5$;

when R_3 is a radical $-OR_5$, R_2 cannot be hydrogen or a radical $-SR_5$;

when R_3 is a radical $-SR_5$, R_2 cannot be a radical $-OR_5$ or hydrogen;

R_4 and R_7 , which may be identical or different, represent a hydrogen atom, a halogen atom, a linear or branched alkyl radical having from 1 to 20 carbon atoms or a radical $-OR_5$,

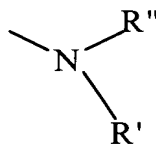
R_5 represents a hydrogen atom, a lower alkyl radical or a radical $-COR_{10}$

R_6 represents:

(a) a hydrogen atom;

(b) a lower alkyl radical;

(c) a radical of formula:



or (d) a radical -OR₁₁

- R₈ and R₉, which may be identical or different, represent a hydrogen atom or a lower alkyl radical,

- R₁₀ represents a lower alkyl radical,

- R₁₁ represents a hydrogen atom, a linear or branched alkyl radical having from 1 to 20 carbon atoms, and alkenyl radical, a mono- or polyhydroxyalkyl radical, an optionally substituted aryl or aralkyl radical, a sugar residue or an amino acid or peptide residue,

- R' and R'', which may be identical or different, represent a hydrogen atom, a lower alkyl radical, a mono- or polyhydroxyalkyl radical, an optionally substituted aryl radical or an amino acid or sugar residue, or alternatively, taken together form a heterocycle,

a salt thereof or an optical or geometrical isomer thereof.

The abstract of Obushak and the abstract of Krutosikova disclose compounds wherein R₂ = H and R₃ = O-Me and wherein R₂ = O-Me and R₃ = H, respectively. However, as explained during the personal interview of June 28 and as set forth in the claims added above, these combinations are excluded from the claimed subject matter. That is, the following combinations are specifically excluded under the definition of the above-added claims:

(a) $R_2 = R_3 = \text{hydrogen}$; $R_2 = R_3 = -OR_5$; $R_2 = R_3 = -SR_5$; when $R_2 = H$, R_3 cannot equal $-OR_5$ or $-SR_5$; when $R_2 = -OR_5$, R_3 cannot equal hydrogen or $-SR_5$; when $R_2 = -SR_5$, R_3 cannot be $-OR_5$ or hydrogen; when $R_3 = \text{hydrogen}$, R_2 cannot be $-OR_5$ or $-SR_5$; when R_3 is $-OR_5$, R_2 cannot be hydrogen or $-SR_5$; and when R_3 is $-SR_5$, R_2 cannot be $-OR_5$ or hydrogen.

It is well-established that in order to demonstrate anticipation under §102(b), each element of the claim in issue must be found, either expressly described or under principles of inherency, in a single prior art reference. See Kalman v. Kimberly-Clark Corp., 218 USPQ 789 (Fed. Cir. 1983). That is not the case here.

The abstract of Obushak and the abstract of Krutosikova fail to, expressly or inherently, disclose each and every element of the presently claimed invention. That is, as the Examiner herself agreed during the personal interview of June 28, because the combinations of R_2 being hydrogen and R_3 being methoxy and R_2 being methoxy and R_3 being hydrogen are excluded by the above proviso, the compounds of the presently claimed invention are not anticipated by either Obushak or Krutosikova, which describe compounds that fall within these excluded combinations.

Further, Applicants wish to point out that the re-written proviso language with respect to the definition of the substituents R_2 and R_3 does not constitute an addition of new matter because the re-written proviso merely clarifies the original language " R_2 and R_3 cannot at the same time be (i), (iii) and (iv)."

As Applicants have written the above claims to include re-written proviso language to more clearly define the excluded combinations of R_2 and R_3 , in accordance with the

Examiner's instructions, Applicants submit that the presently claimed invention is not anticipated by Obushak or Krutosikova. Accordingly, reconsideration and withdrawal of the rejection are in order.

Claims 16-18 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter not adequately described in the specification. As claims 16-18 have been cancelled this rejection is now moot.

Finally, Applicants wish to point out that they have also added new claims 45-52 directed to a method of treating or inhibiting symptoms of a keratinization disorder. These claims have been added pursuant to Applicants' representatives' proposals made during the interview of June 28. That is, as explained during the personal interview, in view of the fact that the Examiner has already treated claims 16-18 as method claims, Applicants' representative proposed rewriting these claims in proper method claim format. See, for example, the Official Action issued March 4, 2002, at pages 4-5, and the Official Action issued September 19, 2001, at pages 4-5, which refer to the subject matter of claims 16-18 as being directed to a "method of treatment of various kind of diseases... ."

Applicants further note that while the Examiner agreed to allow Applicants' representatives to rewrite these claims in proper method claim format, the Examiner indicated that she believes that the methods of treating the numerous pathologies defined in claims 16-18 are not properly supported by the specification. In particular, Applicants acknowledge that the Examiner indicated that she believes that in order to satisfy the requirements of §112, there should be assay evidence in the specification for each of the claimed methods of treatment. While Applicants' representatives do not agree with this

position, Applicants' representatives pointed out to the Examiner that there is at least assay evidence at pages 13-14 of the specification relating to methods of using the claimed compound for treating dermatological complaints such as complaints associated with a keratinization disorder. Thus, Applicants' representatives argued that the Examiner should at least permit Applicants to add claims directed to method of treating a keratinization disorder. As the Examiner agreed to allow Applicants' representatives to add such claims, Applicants have added new claims 45-52 directed to methods of treating or inhibiting symptoms of a keratinization disorder. Further, in order to avoid any additional rejections, Applicants' representatives have written new claims 45-52 to include the re-worded proviso language for substituents R₂ and R₃ as used in the compound claims 33-44.

As a final matter, although Applicants do not believe that it is necessary, Applicants have provided the enclosed technical references Topical Retinoids In Dermatology, Clinical Review, Medical Progress, by Chang et al. (May 1999) and "The therapeutic uses of topical vitamin A acid," *J. Am. Acad. Dermatol.* 1981 May; 4(5):505-13, by Thomas to indicate that at the time the application was filed it was well-known in the art that compositions of the type claimed exhibit activity suitable for treating dermatological disorders such as, for example, keratinization disorders. Accordingly, should the Examiner have any doubt that the methods of new claims 45-52 are supported by the specification, Applicants invite the Examiner to consider the disclosures of these enclosed references.

For at least these reasons, Applicants submit that the newly added method claims 45-52 are patentably distinguished from the art. Accordingly, Applicants respectfully request favorable consideration and allowance of these claims.

From the foregoing, Applicants earnestly solicit further and favorable action in the form of a Notice of Allowance.

Should the Examiner have any questions concerning this paper or the application in general, Applicants invite the Examiner to telephone the undersigned at the Examiner's earliest convenience.

Respectfully submitted,

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ATTACHMENTS: Topical Retinoids in Dermatology, Clinical Review,
Medical Progress, by Chang et al., (May 1999)
"The therapeutic uses of topical vitamin A acid,"
J. Am. Acad. Dermatol., 1981 May; 4(5): 505-13, by Thomas

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